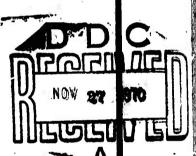
AD 714639

DEVELOPMENT OF DIVISION LOGISTICS SYSTEM COUNTRY STORE PROCEDURES

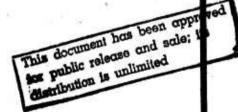
JULY 1970





DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS
US ARMY LOGISTICS DOCTRINE, SYSTEMS AND READINESS AGENCY
NEW CUMBERLAND, PENNSYLVANIA

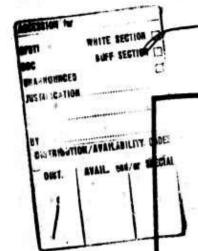
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NATIONAL TECHNICAL INFORMATION SERVICE Springfield, Va. 22151

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DESCRIPTION OF THE PUBLISHING AGENCY

The U. S. Army Logistics Doctrine, Systems and Readiness Agency was established on 23 January 1967 at the New Cumberland Army Depot, Pennsylvania. A Class II activity of the Deputy Chief of Staff for Logistics, Department of the Army, the Agency is functionally organized into three directorates; Logistic Concepts and Doctrine, Logistic Systems and Logistic Operations. The overall mission of the LDSRA is to assist the DCSLOG, DA in the execution of his general staff responsibilities for development and supervision of the Army logistic organization and system (AR 11-8). The following are specific missions:

- a. Analyze the Army logistic System to plan and recommend logistic concepts, doctrine, and procedures for the mid-range and long-term future planning periods.
- b. Perform technical surveillance of Army logistic operations worldwide.
- c. Plan for and assist DCSLOG, DA in providing central direction and control for the development and maintenance of the Army logistic system and doctrine.

ABSTRACT

The stock accounting workload associated with repair parts supply, at the direct support level, can be substantially reduced through use of a Department of the Army approved technique called "Country Store". This study spells out country store concepts applicable to both divisional and non-divisional direct support units in either a manual or automated environment.

ACKNOWLEDGEMENTS

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- U. S. Army Combat Development Command
- U. S. Army Computer Systems Command
- U. S. Army Europe

Research Analysis Corporation

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SUMMARY

1. PROBLEM: The present logistics system providing combat service support to the Army in the field is overburdened with requisitioning and accounting transactions. The bulk of these transactions are for very low cost hardware type items; yet they require formal requisitioning and stock accounting in the same manner as for an item costing thousands of dollars.

2. PURPOSE AND SCOPE:

- a. The purpose of this study is to define the basic logistics precepts to be applied to country store (CS) operation and determine criteria for CS item selection and stockage.
- b. This study is directed primarily at resolving the requirement for immediate formulation of division maintenance battalion CS procedures. However, the procedures developed will be applicable with minor change, to all comparable DSU repair parts supply operations. The solution to the problem and resolution of the objectives was accomplished through recourse to documents such as: Report of the DA Board of Inquiry, report of division logistics systems test, Army regulations, USAREUR country store study, USACSC recommendations, Research Analysis Corporation machine runoffs, and through use of individual experience and discussions with other experienced personnel.

3. DISCUSSION:

- a. The DA Board of Inquiry determined that record keeping requirements and issue procedures at user and direct support unit levels could be substantially reduced and simplified and logistics support improved by treating certain fast moving maintenance parts in the same way as shop stocks. Therefore, these items would not require stock accounting; stockage levels would be computed based on a 180-day EOQ; replenishment would be accomplished only when stock levels reached a predetermined reorder point (RP); and units would use "shopping lists" in lieu of individual requests (DA Form 2765) to obtain items. The parent CS would be established in the main support company of the division maintenance battalion and satellite stores would operate in the supply sections of the forward support companies.
 - b. Such a system was partially tested in the division

logistics system test (DLST) and recommend for implementation when refined. Also, several versions of the CS concept were installed and are operating in USAREUR divisions using their own individual CS configuration and SOP. Stockage varies from 300-1500 line items. Some forward support companies have country stores, others don't. Presently, no standard approved doctrine, procedures, or programs for the operation of CSs exists.

c. This study provides CS doctrinal guidance and concept related to stock accounting, requisitioning, stockage selection, stock level determination, storage, issue, replenishment, inventory, prescribed load lists, reporting, and record keeping.

4. PRINCIPAL CONCLUSIONS:

- a. The benefits that can be achieved through adoption of the CS concept dictate that it be implemented on an expedited basis.
 - b. Economies will result from CS operations.
- c. Logistics support at this level, for these repair parts, will be greatly simplified.
- d. The procedures devised in this study are simple, logical, and feasible and they are applicable to all maintenance DSU repair parts supply operations.
- e. The system is adaptable in either an automated or manual environment.
- 5. RECOMMENDATIONS: It is recommended that the CS procedures spelled out in this study be approved and implemented expeditiously.

MAIN REPORT

1. PROBLEM: The present logistics system providing combat service support to the Army in the field is overburdened with requisitioning and accounting transactions. These transactions result from the requirement that lower echelons replace maintenance parts immediately as they consume them and from the requirement for formal requisitioning and accounting for those high demand items which have a low cost.

2. ASSUMPTIONS.

None.

- 3. FACTS BEARING ON THE PROBLEM: Lieutenant General Joseph M. Heiser, Jr., the Deputy Chief of Staff for Logistics, has directed that the CS concept be implemented in the division logistics system (DLOGS) on an accelerated schedule. In order to meet this schedule, functional concepts and guidance must be formulated, coordinated, approved, printed, and disseminated by 15 August 1970.
- 4. DISCUSSION: The following paragraphs describe the basic concepts for operation of the CS in divisional and other direct support units (DSU) worldwide. Appendix A deals in greater length with the conditions that generated a need for the CS type of supply support, the elements of the CS system, and the rationale in support of the proposed changes. A follow-on effort to this study will be the preparation of user procedures by USACDC. These procedures will prescribe the detailed manual operation, standards, format, and interface with the DLOGS automated programs for repair parts supply support. USACSC will develop any automated program changes that are required in order to implement the CS concept.

a. Stockage.

- (1) The majority of items stocked in CSs will be common hardware and routine replacement parts such as nuts. screws, washers, fuses, lamps, gaskets, etc. Of the line items stocked in the CS, about 90% will have a value of less than \$2.00 and 40% of these will cost less than 25¢ each.
- (2) The bulk of CS stock will be located in the parent CS in the division maintenance battalion main support company supply section. Forward maintenance support

company supply sections will operate satellite CSs which will carry a 15 to 20 day stock of items used by the units they support. (Appendix A, paragraph 4.a.(1)(b))

- (3) In order for items to qualify for stockage, repair parts must:
- (a) Be on the division (DSU) authorized stockage list (ASL) as a result of demand history.
 - (b) Be expendable.
- (c) Have a unit price of less than \$5.00 or have a unit pack that is greater than 0001, or have one of the following units of issue, and the pro-rated cost of each unit is less than \$5.00:

AA	(Two Hundred Fifty)	FY	(Feet)	PG	(Package)
AC	(Twenty)	GR	(Gross)	PK	(Pack)
AV	(Twenty Five)	HD	(Hundred)	PR	(Pair)
BL	(Barrel)	HF	(Hundred Feet)	RE	(Reel)
CL	(Coil)	KE	(Keg)	RL	(Roll)
CT	(Carton)	LB	(Pound)	SE	(Set)
DR	(Drum)	LL	(Fifty)	XX	(Ten)
				YD	(Yard)

- (d) Not be direct exchange (DX) items.
- (e) Not be controlled or regulated items as defined in AR 320-5.
- (4) The items which qualify for CS stockage are actually the hard core of repair parts stockage at all levels. The CS technique will reduce the number of demands received at all levels but will not affect the number of each item issued. Therefore, inventory control centers (ICC)/consolidated supply offices (CSO) will mandatorily stock all items on CS lists of DSUs they support. The ICCs/CSOs will receive copies of the DSU's CS lists. When these lists indicate that an item has been dropped from all CSs, the ICC/CSO will drop the item from its CS list. The item will then be subject to normal demand criteria. The entry of an item into a DSU CS stockage list will automatically qualify the item for the ICC/CSO CS stockage list if it is not already on it.

- (5) Once every six months, the division data center (DDC) will check for any CS items which have not had division stock replenishment action during the previous nine months. When this situation occurs, the technical supply officer (TSO) will determine the stock level of the item and decide (based on demand data) either to delete or retain the item on the ASL. Excessing action (if possible) will be avoided on these low cost items. When issue action no longer justifies retention of an item on the ASL, the item will not be excessed. Items scheduled for attrition will be marked and dated, and if not consumed within one year, salvaged.
- (6) CS stockage adheres to the principle of one stop support for repair parts. This is accomplished by having all ASL items (CS, DX, and remaining higher cost items) located in the same area. The CS items are in the same section and all stock of each CS item is together. In a fixed facility, all ASL items will be issued over the same counter. In the field, the parts vans will be parked in the same area for distribution of all ASL parts. Stock levels for CS items will be computed using a 180-day EOQ.
- (7) The division DSU will forward replenishment requisitions for CS items in DD Form 1348 card format, when the reorder point (RP) for the item is reached. When the replenishment quantity is received, entry will be made in the transaction register and the item will be dropped from the data center files. At the main support company parent CS, the new RP quantity of stock will be placed in a plastic bag or container along with the new RP card.
- (8) Forward support company satellite CSs will obtain replenishment stocks from the parent main support company CS. To facilitate and simplify this action, reproduced lists of forward support company CS stocks (300-400 line items) will be prepared semiannually by the DDC. As issues are made to units, the quantities can be entered on the list. Once a week the quantities of each item issued will be totaled and the list sent back to the main support company. The forward support companies will do this on a staggered schedule as directed by the parent CS. The replenishment quantities will be sent forward, on schedule, to the forward support companies. On this same run, replenishment stocks of serviceable DX items could be sent forward with any other PLL replenishment items.
- (9) When a unit requires an authorized repair part for their level of maintenance and the item is not in its organizational shop stock or PLL, the division CS stockage

list will be searched to determine whether or not it is a CS item. If not, a DA Form 2765 will be submitted for the part. CS items, not stocked in forward companies, will be brought forward as required. A telephone call or an informal message is sufficient to alert the main support company to send the needed repair parts.

b. Accounting Procedures.

- (1) The present Department of the Army (DA) policy for parts replenishment at the unit level requires that units forward requisitions daily for the parts that were consumed that day. This is done formally through the use of a DA Form 2765.
- (a) A demand placed can cause up to fifty accounting transactions. This overloads the supply system causing error and delay. There is no need to keep a record of how many of each of the more commonly used items are consumed by units.
- (b) TAAMS records contain necessary consumption and usage history of these parts. The division data center will have a record of how many of each CS item the division uses. With this information, the division ASL can be computed.
- (2) When a shipment of CS items is received at a DSU, the items are then considered expended and dropped from formal stock accountability. The key then to the CS system is: no formal requisitions will be submitted for CS items by units; no records will be kept of issues from the CS.
- (3) With the elimination of the detailed stock accounting for these items, we take a big step toward simplification of supply support at this level.

c. Issue of CS Items.

(1) The easiest way to issue CS repair parts would be through the use of the self-service type store. This technique is not feasible because of the space required to display that number of line items and the problem of identifying interchangeable and substitute items as well as catalog changes. Over the counter issue is then the simplest practical method. Customers will identify the item they want by listing the stock number/part number, with the noun entered underneath, and quantity on a multiline request called a "shopping list". This list is presented to CS personnel who will issue the items across the counter to the unit parts man who carries them back to his mechanic.

- (2) Each DSU will semiannually publish a list of all of its CS items. No catalog change, substitutability or interchangeability information will be provided to units. The DDC will provide this information to the TSO/CS in consolidated form. It will also provide the CS with printed slips for each change/substitution in a quantity sufficient to accompany each issue of the item from the parent or satellite stores. If a CS item has a catalog change or reaches an out-of-stock position, CS personnel will issue the acceptable part with the preprinted explanation of the substitution/change attached.
- (3) If a CS item does reach an out-of-stock position, units can establish a separate shopping list for the item. They can continue using this shopping list by updating the quantity required until the item is received at the CS and issued to the unit. The issued item would then be lined out. The CS will not carry due out lists or records for such items nor will units submit status requests.
- (a) If equipment should become "not operationally ready supply" (NORS) because of a CS item, the unit will prepare a separate request, (shopping list) and enter "NORS" and the priority on the line below the stock number. This list will be authenticated with the unit commander's or the supply officer's signature.
- (b) If the item is not in stock in the satellite CS when a request is presented, the clerk will call the parent CS for information as to whether or not the item is available within the battalion. If it is, it will be immediately forwarded to the proper store or the unit will be authorized to go to where the part is located and make the pickup.
- (c) If an item gets into zero balance at all CSs, the division G-4 will direct that an inventory of the item be made at all units in the division. The TSO will collect and control issue of any quantity found. If equipment becomes "not operationally ready supply" (NORS) because of lack of a CS item, the unit will prepare a separate form 3084R (in duplicate) for the item. NORS and the IPD will be entered just below the stock number. This list will be authenticated with the unit commander's or the supply officer's signature. The CS chief will then sign his name on the original copy of the shopping list just above the NORS item. The unit will retain this copy until the item is received. In the interim it will serve as "proof of requisition" in readiness inspections (See Appendix "A", para

4.b.(4) for detailed instructions).

(4) Items which qualify for CS stockage but because of their nature are subject to misappropriation will be treated as "special handling items". Generally speaking, these are items such as flashlight batteries and bulbs, common spark plugs, points, condensers, and headlights. The maintenance battalion/DSU commander will determine which items fall into this category. These items will be identified on the CS stockage list by an asterisk or some other mark. Units will obtain "special handling items" by requisitioning them on a separate shopping list signed by the unit commander/supply officer.

d. Prescribed Load Lists (PLL).

- (1) Implementation of CS procedures will have an impact on unit PLLs. Insofar as demand history is concerned, CS items are the hard core of unit PLLs. The ready availability of CS items, coupled with their low cost and frequency of use, dictates that they be handled as simply and expeditiously as possible. There is little need for listing them on the PLL or for keeping track of their consumption in relationship to equipment or to units. Therefore, CS items will not be included in unit PLLs.
- (2) Title inserts and record of issue will not be kept for CS items. However, the unit mechanic must have the CS items on hard and immediately available for use. A unit "organizational shop stock" will be authorized in order to provide small quantities (about 15 to 20 days supply) of items (Appendix A, para 4.a.(1)(b)).
- (3) On the CS stockage list provided by the DDC/TSO, the unit maintenance section chief will enter the quantity that represents the unit's 15 day stockage level (approximate). The maintenance section chief will visually check the on-hand quantities of these items weekly and, where the consumption rate justifies it, modify the stockage quantity accordingly. Command inspections will ascertain that reasonable quantities of these items are on hand. Standards will be provided in user procedures.

e. Inventory and Reporting.

(1) Information from inventories is primarily used to reconcile stock account and warehouse quantities of the more expensive (and of critical/controlled) items. No stock account record is kept of the on hand balance of CS items in the DSU. Further, CS items will seldom be in a

short "critical" stockage position. Therefore, these items will not be subject to cyclic inventory or reporting.

(2) CS items stocked in support company supply sections will be inventoried and reported, on an exception basis as directed by the TSO. Once each week the supply section chief will visually survey all CS bins. If the RP container has been entered, he will ascertain that a red tagged RP card (DA Form 2765) is present. If the red tagged RP card is not there, he will contact the TSO and verify the status of replenishment action.

f. Personnel Impact.

- (1) It appears that there will be no personnel impact as a result of the implementation of the CS concept. This will be verified when the system is installed in the 5th Infantry Division (Mechanized).
- (2) Implementation of CS procedures will not change the rate of parts malfunction within the supported units. However, units will not process requisitions as often as under the current system. The CS clerk, instead of issuing one each of an item, will now issue two or three each. This will reduce the parts issue workload.
- (3) On the other hand, CS personnel will now count out RP quantities about twice a year for each CS item. They will place RP cards in the bins when replenishment action takes place. On the whole, workload savings and increases tend to balance each other.

g. Equipment Impact.

- (1) The DLST provided four CS supply vans to the main support company and one to each of the three forward support companies. This latter was on the premise of a 180-day EOQ stockage level. The concept now being implemented provides for only 15 to 20 days stock of items at forward support companies with the balance of the 180-day stock being held in the parent main support company CS. This will result in reduction in weight and cube of transport requirements forward.
- (2) Counteracting this will be the fact that the present criteria for CS stockage will add 10 to 15% more line items. The four supply vans provided to the main support company CS will now have to carry a greater range of stockage than in DLST. However, the DLST vehicular requirements were only estimates and were not properly tested. The actual

installation of the CS concept at the 5th Infantry Division will verify the adequacy of the supply vans allocated.

- h. Records and Documents. In accomplishing supply support under CS procedures, the following records and documents will be required:
- (1) A CS stockage list will be prepared by the DDC and updated, to include catalog changes, semiannually. Copies will be distributed to all units in the division. The data center, in making its CS runoff, can print the list on a multilith master which can then be reproduced.
- Reorder Point Record. The DLOGS system will use DA Form 2765 preprinted and prepunched as the RP record card. When a CS item reaches the RP level, the RP card will be removed from the RP quantity container and brought forward to the locator file which contains an identical card. The DA Form 2765 (in the better condition) will be forwarded to the DDC through the TSO. The other RP card will be retained in the locator deck. The DDC will recompute the stockage level and initiate replenishment action. At the same time the DDC will preprint and prepunch a new DA Form 2765, in duplicate, with item identification, reorder point quantity, and location data. These will be sent back through the DSO to the main support company supply section CS. One copy will be placed in the item bin with a red piece of paper clipped to it. This shows that the item is on requisition. When the replenishment quantity is received at the CS and binned, the RP quantity of the item and the RP card (DD Form 2765) with red marker removed, will be placed in the RP container.
- (3) Catalog Change and Interchangeability/Substitutability Item List. Each month the DDC will provide the maintenance battalion TSO with updated catalog change and interchangeability/substitutability information. This information will not be provided to using units. For each such item, the DDC/TSO will prepare and reproduce slips explaining the change. The slips will be forwarded to the CSs for issue with the appropriate item. The CS list published semiannually will contain the latest catalog changes.
- (4) Shopping List (DA Form 3084R). This form is a multiline request which provides for entry of federal stock number or part number, and quantity desired. DLOGS procedures require that the noun description of the item be entered also. If and when the "simplified unit supply system" new multiline requisition form is adopted, it will replace the shopping list. The best way for units to use

this form (DA Form 3084R) would be for the unit parts man to make proper entry on the shopping list each time he issues a part. Then when he goes to the CS for replenishment of his stocks, his request is already prepared. (see para 4-C.(1))

5. CONCLUSIONS:

- a. The CS procedures outlined in this study have already been basically tested and approved by the Department of the Army for implementation.
- b. This study pulls the different elements of the technique together in one package, to provide for a standard operation applicable to all Class IX direct support units, manual or automated.
- c. The important thing in connection with the CS concept is that the benefits achievable through adoption of the concept are so obvious and numerous that it should be implemented on an expedited basis.
- d. The procedures are simple, logical, and feasible. They will result in many accounting economies.
- e. The logistics support at the unit level will be greatly simplified.
- 6. RECOMMENDATIONS: It is recommended that the CS procedures, as defined in this study, be approved and implemented.

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APPENDIX A

COUNTRY STORE

1. GENERAL. This appendix explains the present system by which DSUs handle repair parts, describes the efforts which led to this study, spells out the country store (CS) concept in greater detail than in the main report, and includes rationale used in arriving at these CS procedures.

2. THE PRESENT SYSTEM.

- a. Over the past 25 years continuing surveys have established that the great majority of demands placed on the supply system are for a small percentage of repair parts. The most common ratio used is that 15% of the items account for 85% of the demands. Predicated on this fact, adoption in 1955 of the "Modern Army Supply System" (MASS) concept drastically reduced the size of TASLs, ASLs, and PLLs. Unfortunately since then, they have again burgeoned in size. It has long been known that a large proportion of the 15% (of the line items) used was inexpensive, common five and ten cent repair parts. It is the host of these requisitions which complicate the supply accounting system. Our greatest opportunity to reduce accounting workload and simplify the issue of supplies rests in changing the way we handle these items.
- Under the present system for issue of repair parts, the division maintenance battalion main support company supply section carries stock for direct support of rear area units and backup of the forward support companies. Forward support companies carry a limited stock of demand supported items -- those commonly used by the units they support. Units submit DA Form 2765, standard requisition, to obtain parts. Each DA Form 2765 single line item request requires many accounting transactions. This applies to all repair parts in ASL stock regardless of the value or rate of turnover. If the request is a high priority and the item is in stock, it is issued and the data files are posted. If the request is not a high priority, it must be processed through the record keeping activity and a materiel release order sent to the appropriate supply section before the item can be issued. This procedure causes delays of several days before issue is received. Both posting techniques generate, over a year's period, tens of thousands of machine/manual transactions. The most commonly used items are included in unit PLLs and stocked in the units. Therefore the units must keep title inserts and record of

issues for these items which cause a continuing series of stockage level recomputation. There exists a need to simplify the repair parts replenishment operation at unit level.

3. TRENDS.

- a. For a number of years, efforts have been made to improve and simplify the repair parts issue system.
- (1) One attempt was the SALTI (Summary Accounting for Low Dollar Turnover Items) procedure designed for use at installation warehouses. SALTI, as defined in AR 711-16, changes 6 and 9, is for items which have a unit price of less than \$10.00 and an annual total issue of not more than \$300.00. Sixty percent of repair parts at post level fall These items are expended from the stock under SALTI. record account and stored in the warehouse (with reorder point, quantity, and card in a plastic bag). Customers request a desired item on a "want" slip (shopping list) and obtain it over the warehouse counter. This technique substantially reduced accounting workloads but experienced problems in the area of supply management. Those persons responsible for initiating replenishment actions often failed to do so and stockage items fell into zero balance positions. Many of the SALTI issue and warehousing procedures will be used by the CS concept. Primary deviations from SALTI occur in control of replenishment actions and improvements over SALTI procedures.
- (2) Service Stock, authorized by AR 711-16, eliminates posting of individual issues to stock records and provides for issue of supplies to units located remotely from the main property account. Minor secondary items and repair parts needed by units are dropped from the accountable property records and issued to maintenance activities. No funding is required at this level. The term "located remotely", is interpreted to mean, not in the same building as the supply section.
- (3) The DA Board of Inquiry, in its investigation of repair parts stockage policies and procedures, determined that record keeping requirements at the user and direct support unit (DSU) levels could be substantially reduced and logistics support improved by treating certain fast—moving items in the same way as shop stocks. These would be common application high-turnover items such as cleaning supplies, hardware store type items, and routine replacement parts such as filters, gaskets, lamps, fuses, etc. No stock records would be kept. Replenishment would be

accomplished only when stock levels reach a pre-determined reorder point (RP). Units would use shopping lists (multiline item request on which the unit enters stock number and quantity) in lieu of individual requests (DA Form 2765). The Board recommended that a CS be established in each of the three forward support companies and in the main support company of the division maintenance battalion to provide fast and simplified issue of these non-critical items.

- The CS system tested in the division logistics system test and recommended for implementation as a part of DLOGS was a modified SALTI concept. Items discussed in para 3.a.(3) were stocked. Stockage levels for items costing less than \$5.00 were based on demand experience. A modified economic order quantity (EOQ) stockage level of 180 days was also applied. An automated listing of CS items was furnished to all units. Unit replenishment requests were made on a special form called a shopping list. Items not in stock, or not on the shopping list, were requested on DA Form 2765. High priority requests received special handling. Automated demand records were kept only for items stocked at the main support company. Unit representatives would bring their marked-up shopping lists to the appropriate CS activity and issue would be made over the counter. These CS procedures provided paper record and administrative workload relief at all levels -particularly in the Technical Supply Office (TSO), Division Data Center (DDC) and at units. Response time was considerably less than for the rest of the ASL items. The shopping list minimized user preparation time.
- c. The present status of the CS concept includes various versions installed and operating in USAREUR divisions. Each of these divisions has its own CS configuration and SOP. Stockage varies from 300 to 1500 line items. Some forward support companies have CSs, others don't. Presently, no standard approved doctrine, procedures or programs for their operation exist.
- d. An analysis of the benefits that could be achieved in USAREUR through full implementation of the CS concept demonstrates that it will:
- (1) Reduce the quantity of formal requisitions by some 60-70% and the quantity of transactions by about the same percentage, thus simplifying stock accounting. In Europe, this would amount to 1/2 million requisitions and 5 million transactions annually.

- (2) Reduce PLL stockage.
- (3) Simplify costing and financial management.
- (4) In USAREUR last year divisional units processed some 550,000 demands involving 5 million separate transactions for items costing under \$5.00 each. These accounted for seventy percent of the total annual demands. Fifty percent of the requests were for one each -- twenty-five percent for 2 each. Eighty percent of the demands against a given ASL can be accommodated by twenty percent of the ASL items.
- e. The Research Analysis Corporation examined last year's repair parts history and compiled a list of 1484 candidate country store items. Figure 1 is an analysis of this list categorized by cost, line items, demands, and quantity issued. One DLST test criteria for CS was items having a value of \$5.00 or less. Figure 1 shows that out of 1484 items studied, those costing less than \$2.00 accounted for 89% of the line items, 90% of the demands, and 96% of the total quantity of individual items issued. Moreover, those costing less than 25 cents accounted for 40% of the line items, 38% of the demands, and 62% of the total quantity of individual items issued. This demonstrates that these CS items are truly low cost items and should be treated as such.
- 4. PROPOSED CS SYSTEM. This study provides doctrinal guidance and procedures for implementation of the CS concept for repair parts. CS items are nuts, screws, washers, fuses, lamps, etc. They are the least expensive and most commonly used parts in the Army supply system. It is mandatory that we reduce the cost of, and simplify the issuing of these items to units. We must improve on the present complex and costly method of handling them. Activities, agencies, and organizations involved with development and implementation of this concept for Class IX items will conform to the following guidance.
- a. Stockage. To the extent possible, one stop supply will be provided through stockage of all division ASL repair parts in the same area. This includes CS, DX, and all other ASL parts authorized for stockage. These items are now stocked in bins in supply vans, or if the unit is in a garrison situation, a building may be available to house the bins and parts. This will continue to be so. However, under the CS concept, those ASL parts which are CS stock will be moved to and segregated in one set of bins which contain only CS items. By the same token, DX items will

ANALYSIS OF 1484 CANDIDATE CS ITEMS

BASED ON ONE YEAR'S USAREUR ISSUE EXPERIENCE

12 20,340
8 11,154
12 16,154
6 8,184
3 4,405
2 2,569
100 140,408

FIGURE 1

be segregated as will the remainder of the ASL items. Thus, all ASL items in the supply sections of the maintenance battalion companies will be stored in one general area for one stop support. Each category of items will be grouped by type for ease of control, location, and stock selection by supply section personnel. Further, the total quantity of each individual CS item will be stored in one location in each store. In a fixed facility, all ASL items will be issued over the same counter. When mobile vans are used, one stop supply will still be accomplished by parking the supply vans in the same area. When the unit's parts man visits the vans, all the parts he needs will be available.

(1) Stock Levels.

- As part of economizing on the cost of handling these low value items, a modified EOQ of 180 days will be used in place of the presently authorized 15 day stockage This will substantially reduce the number of level. replenishment requisitions submitted. The reorder point (RP) will be 60 days stock. When this point is reached, 180 days replenishment will be requisitioned. This will cover issues that occur between the time the replacement requisition is submitted and the shipment arrives. This 180 day EOQ will be subject to modification by the Department of the Army based on recommendations contained in a Logistics Management Institute Survey and recommendations of a DA EOQ team survey.
- Forward support companies will carry a 15 to 20 day stock of those items used by the units they support. The main support company supply section will carry the remainder of the DSU Class IX stock and provide backup support to the forward support company supply sections as well as direct support to division units in their area. Units will carry a 15-20 day organizational shop stock (not on PLL) of those CS items they normally use. Forward support companies and units, at the time of conversion to this system, will have knowledge of the quantity of each CS item that comprise a 15-day stock. These quantities will be the basis for their CS/organizational shop stockage respectively. The quantities will be entered on a copy of the appropriate CS list and will then be used as general guides by responsible personnel. These quantities will be modified as necessary when visual inspection shows that stocks are being issued more rapidly or less frequently. It is not expected that the quantities will be precisely determined. Records of issue will not be kept for this This stockage enables consolidation of requirements

over a period of a week. Hence, if the stock of a CS item is exhausted at a unit, it is immediately available in the CS chain.

- (2) Stock Selection. In order to qualify for CS stockage, repair parts must:
 - (a) Be on the division (DSU) authorized stockage list.
 - (b) Be expendable.
- (c) Have a unit price of less than \$5.00 or have a unit pack that is greater than 0001 or have one of the following units of issue, and the pro-rata cost of each unit is less than \$5.00:

AA	(Two Hundred Fifty)	FT	(Feet)	PG	(Package)
AX	(Twenty)	GR	(Gross)	PK	(Pack)
AV	(Twenty Five)	HD	(Hundred)	PR	(Pair)
BL	(Barrel)	HF	(Hundred Feet)	RE	(Reel)
CL	(Coil)	KE	(Keg)	RL	(Roll)
CT	(Carton)	LB	(Pound)	SE	(Set)
DR	(Drum)	LL	(Fifty)	XX	(Ten)
			-	YD	(Yard)

- (d) Not be direct exchange (DX) items.
- (e) Not be controlled or regulated items as defined in AR 320-5.
 - (3) Stock Deletion.
- (a) The items which qualify for CS stockage are actually the hard core of repair parts stockage at all levels. The CS technique will reduce the number of demands received at all levels but have no effect on the total number of each item issued. Therefore, inventory control centers (ICCs)/consolidated supply officers (CSO) will mandatorily stock all items that are on CS lists of DSUs they support. The ICCs will receive copies of the DSU's When these lists indicate that an item has been CS lists. dropped from all CSs, the ICC will drop the item from its CS list. The item will then become a regular stockage item and will be subject to normal demand criteria. The entry of an item into a DSU CS stockage list will automatically cause the item to qualify for the ICC CS stockage list if it is not already on the list.
- (b) Once every six months a check will be made by the DDC for any CS items which have not had division stock

replenishment action during the previous nine months. When such items are found, the TSO will determine the stock level of the item and obtain from the DDC its replenishment history. From analysis of this, a decision, based on demand data, will be made to delete/retain the item on the ASL. Excessing action (to the extent possible) will be avoided on these low cost items. When issue action no longer justifies retention of an item on the stock list, the item will not be excessed. Items scheduled for attrition will be marked and dated and if not consumed within one year, salvaged.

(4) Stock Replenishment.

- (a) In the initial establishment of a CS, all ASL items authorized for stockage at the DSU will be screened against the preceding criteria. New Items qualifying for the ASL will be screened and when appropriate, added to the CS list. This will be done just prior to publication of new CS lists. An increase in price of a CS item that raises its cost above \$5.00 will not be cause for its removal from the CS. As long as other CS criteria pertain, it will be retained in the CS. This will almost eliminate the movement of items onto and off of the CS stockage list. As a result, new CS lists need be prepared no oftener than once each six months.
- (b) The DSU will forward replenishment requisitions for CS items when the RP for the item is reached. The RP quantity of stock of each item will be placed in a plastic bag or container laong with a RP card, DA Form 2765, when it is received at the main support company supply section. If necessary, the card will be folded or rolled. When all stock, other than the RP quantity, has been issued and the container is opened, the RP record with on hand quantity noted on it will be forwarded to the DDC. This information will be entered into the MIR. When the RP card for the item (with the on hand quantity entered) comes into the DDC the next time, they will know the quantity that has been issued and the time period involved. From this they will be able to compute the new EOQ stockage quantity and RP. The data center will then recompute stockage levels, make entry into appropriate files, and make entry into the daily unit transaction register. A replenishment request, DD Form 1348M, will be forwarded to the next higher supply level. At the same time the DDC will preprint and prepunch new DA Form 2765s (in duplicate) with item identification, RP, quantity, and location data. The DA Form 2765s will be sent through the TSO to the main support company supply section CS. One copy will be placed in the locator file and

the other in the bin for the item with a red piece of paper clipped to it. This will show that the item is on requisition. When the replenishment quantity is received and placed in its proper bin, this card, with its new RP quantity, will be placed in the RP container. The red marker, which served to show that the item was on requisition, will be removed from the card and bin. Because these stocks are not consumed at a standard or precise rate, they will tend to reach their RP at different intervals. Over a period of time this will result in staggering of the replenishment requisition workload.

Forward support company satellite CSs will obtain replenishment stocks from the parent main support company CS. To facilitate and simplify this action, reproduced lists of forward support company CS stocks (300-400 line items) will be prepared semiannually by the DDC. As issues are made to units, the quantities can be entered on the list. Once a week the quantities of each item issued will be totaled and the list sent back to the main support company. The forward support companies will do this on a staggered schedule as directed by the parent CS. replenishment quantities will be ready for pickup, on schedule. The forward support companies on this same run can replace stocks of unserviceable DX reparables as well as pickup any other ASL items for their stocks or for units they support.

b. Accounting procedures.

- (1) Present DA policy requires that units forward requisitions daily for the parts that were consumed that day. This is done formally through use of DA Form 2765. In USAREUR divisions, units place better than 45,000 demands yearly on each division maintenance battalion for low cost parts. A demand placed, results in as many as fifty accounting transactions, such as:
 - Document register entries.
 - Posting demand data.
 - Updating demand history files.
 - Updating master inventory record.
 - Producing materiel release orders.
 - Producing prepunched requests.
 - Producing frequent replenishment action.

Of the total quantity of demands made for Class IX parts, 70% is for items costing less than \$5.00; and 63% is for items worth less than \$2.00. It is extremely expensive to process such a mass of transactions. Overhead and operating

costs of processing each requisition range from \$8.00 - \$16.00. These transactions overload the system thus causing errors and delays.

- (2) If there were a cogent reason for keeping track of this myriad of small issues of low cost common parts, then perhaps the cost of doing it could be justified. But there is really no need to know how many of each item each unit consumes. Insofar as maintainability and reliability aspects are concerned, these particular repair parts are not the important items. At each division stock replenishment time for each item, the DDC will know how many were issued during the period since the last replenishment requisition was submitted. With this information, the division ASL can be computed. Also, this consumption was recorded at higher supply echelons for use in their stockage level determinations.
- (3) A simple solution to this problem is to eliminate unnecessary detailed formal accounting for inexpensive items. This can be done by a technique called summary accounting. Instead of accounting for each issue of low cost items, the replenishment shipment to the DSU will cause two accounting postings at the division/DSU level (receipt of the item and dropping it from the records). When these shipments are received, they will be considered expended and dropped from the DDC accounting files. No record is kept of issues from the CS.
- (4) CS items will be identified on DSU records to preclude inadvertant individual requisitioning.

c. Issue of CS items.

- (1) With no need existing for it, detailed stock accounting of these items can be eliminated at this level. In so doing, we take the first giant step toward our goal of a simplified supply system. The easiest way to issue these parts would be through the self-service type store where the unit's parts men would help themselves. This technique is not feasible because of the requirement for enough space to display that number of line items. Also the problem of identifying interchangeable and substitute items as well as catalog changes makes this technique not feasible. Over the counter issue is then the simplest practical method.
- (2) A customer makes his requirement known and CS personnel enter the location, go to the proper bin, get the item, and hand it to the unit's parts man who carries

it back to his mechanic. But the customer does have to know exactly what he wants. The means of positive identification is the stock number/part number. Because a units parts clerk cannot be expected to remember a series of such numbers, he will have to write them down. In the method provided, he will use a shopping list (DA Form 3084R) multilire request. This form provides spaces for recording stock numbers and quantities required. The easiest way for the parts man to keep track of the items he needs is to record the stock numbers and noun description of the parts as they are used. He can do this by listing them on the shopping list as the issue is made. On repeat issues he would just update the quantity. Then every second or third day, whenever he goes to the CS, this list would be presented to the CS clerk who would get the items for him. When the proposed "Simplified Unit Supply System" multiline requisition is introduced, it will replace the shopping list.

- (3) Many CS items will have units of issue other than "each" or greater than "one" i.e., keg, reel, roll, set, or pack of twenty five. The CS will make issues to units in the exact quantity needed regardless of packs which will be broken as necessary. Detailed instructions for issue will be provided in user procedures.
- Each DSU will semi-annually publish a list of all of its CS items. No substitutability/interchangeability information will be provided to units. If a CS item reaches an out-of-stock position, CS personnel will issue the acceptable part in lieu of the requested item with a printed explanation of the substitution attached. Because of their commonness and universal availability, CS items should seldom get into a critical stockage position. a CS item does reach an out-of-stock position, the CS will not retain requisitions (shopping lists) or carry due-out lists or records. Nor will units submit status requests. For out of stock CS items, units can establish a separate shopping list and update the quantity of the item required until it is received by the CS and issued. The TSO will be responsible for expediting replenishment action and keeping informed as to its status. If equipment should become "not operationally ready supply" (NORS) because of lack of a country store item, the unit will prepare a separate DD Form 3084R for the item. "NORS" and the IPD priority will be entered just below the stock number. list, prepared in duplicate, will be authenticated with the unit commander's or supply officer's signature. If this NORS item is in zero balance, or not stocked in a forward support company CS, the store clerk will call the main

support company. If the part is in stock, it will be sent forward. If it is out of stock at the main support company CS and all other forward support company CS's, the forward support company CS clerk (the main support company CS clerk if the request is presented there) will, in writing, enter necessary information into a DA Form 2765 and forward it to the TSO for processing under existing "high priority" procedures. The supply section chief, or his assistant, will then sign his name on the shopping list just above the NORS item. The unit will retain this shopping list until the item is received. In the interim it will serve as "proof of requisition" in readiness inspections. The duplicate copy will be retained in the supply sections When NORS items are received, priority of issue instructions will be given to the CS by the TSO and the units will be notified to make pickup.

of their nature are subject to misappropriation, will be treated as "special handling items". These are items such as flashlight batteries and bulbs, common spark plugs, points, condensers, and headlights. The maintenance battalion/DSU commander will determine which items fall into this category. These items will be identified on the country store stockage list by an asterisk or some other mark or a separate list may be published. Units will obtain "special handling items" by requesting them on a separate shopping list signed by the unit commander/supply officer.

d. Prescribed load lists (PLL).

A good part of a unit's PLL is CS items. Each unit is now required to keep title inserts and records of issue of its PLL items. The DDC, under automated procedures, must recompute PLL levels monthly. As a result, one month a unit may be authorized ll each of a 2¢ washer, the next month 13, and the following month 12. We cannot afford the needless cost of such record keeping for Woolworth Store type items, nor do we want this type of stockage level Implementation of the proposed CS accounting, vacillation. requisitioning, and issue procedures will have an impact on Insofar as the number of demands is concerned, CS items are the heart of unit PLL stockage. The ready availability of CS items, coupled with their low cost and frequency of use, dictates that they be handled as simply and expeditiously as possible. There is little need for listing them on PLLs or for keeping track of their consumption in relationship to equipment or to units except as required in TAMMS forms. Therefore, CS items will be eliminated from the formalities of inclusion in unit PLLs.

Title inserts and record of issue will not be kept for CS items. However, these items will be stocked in the unit maintenance sections and will be immediately available. The unit mechanic must have on hand and available when he needs them the CS items he uses so repair won't be delayed or the unit's effectiveness reduced. When a truck wheel is removed, the mechanic must have a cotter pin when replacing the wheel. He cannot just sit there while his parts man goes to the CS to get a pin. Nor can the parts man be dashing off to the CS each time a mechanic needs one of these items. Therefore, unit maintenance sections will be authorized to stock small quantities of these items (about a 15 day supply) which they normally use. Command inspections will ascertain that reasonable quantities of CS items are on hand in units. Standards will be provided when user procedures are written.

There are simple ways of providing this stock. two most commonly used techniques are "service stock" and "maintenance shop stock." Service stock is authorized by AR 711-16. This method eliminates posting of individual issues to stock records and provides for issue of supplies to units located remotely from the main property account. A broad interpretation of this includes unit shops that are not in the same building as the parts supply operation. Minor secondary items and repair parts needed in these units are dropped from the accountable property records and issued to these maintenance activities. No funding is required at this level. The maintenance shop stock is a limited amount of expendables and repair parts authorized by installation commanders to general and direct support maintenance activities. The above techniques will be used to provide stocks of CS parts to unit mechanics. This 15-20 day supply of parts will be called "organizational shop stocks.'

e. <u>Inventory</u>.

(1) Inventories are required to certify/reconcile stock record account balances. They are accomplished on a cyclic basis and in special situations. Such inventories are primarily concerned with more expensive and critically short stockage position items. The counting and recounting of nuts, screws, washers, etc. usually result in finding as many dollars worth of overages as of shortages. Further, the money expended in salaries of those doing the counting far exceeds the value of any overages that might be found. For the items both short and over, we must bear the additional cost of preparing an inventory adjustment report, report of survey, or some similar document. In the CS we

stock only low dollar value items. In fact, 62% of the total number of individual CS items issued cost less than 25¢. Under the CS concept there will be no records kept of on hand balances or issues of CS items. The system is designed with safeguards to insure that replenishment requisitions are submitted properly. This will overcome the weakness of the SALTI system which permitted items to get into an out of stock position. For these reasons there will be no inventory of these items except when/if an item gets into a critical stockage position and the TSO directs that an inventory be made.

(2) At the TSO's request, the division G-4 will direct that special inventories be made at the CSs and units if an item gets into a critical stockage position. Based on the results, the TSO can control cross fill and movement of the item. Once each week the supply section chief, or his assistant, will visually survey all CS bins. Where the RP container has been entered, a red tagged RP card (2765) will be present signifying that the replenishment requisition has been forwarded. If the seal has been broken and the container entered and there is no red tag, the TSO will be contacted and the status of replenishment action verified.

f. Reporting.

No formal reports are required for country store items. In normal situations, CS items are in a good stockage position and no report of the number of demands satisfied is needed. Such reports would be of no value. But should a CS item get into a critical stockage position, a temporary report might have significance to management. This would come under the category of exception reporting.

g. Personnel impact.

- (1) Units, whatever their location, environment, and equipment usage rate, generate equipment failures that require replacement parts in order to repair the equipment. As long as the unit gets the part, it makes no difference to them whether it is issued as the result of a formal requisition or an informal one. The method of issue will not change the malfunction rate, maintenance workload, or parts consumption rate.
- (2) All ASL parts are now stocked in bins in supply vans. If the unit is in a garrison situation, a building may be available to house the bins and parts. This will continue to be so. But, under the CS concept, those ASL

parts which will be CS stocks will be moved to and segregated in one set of bins which will contain only CS items. Further, the total quantity of each CS item will be stored in one location.

- (3) DSUs have authorized, on their TOE's, sufficient personnel to handle the normal workload of parts supply under formal detailed accounting procedures. It appears that there will be no personnel impact as a result of the implementation of the CS concept. This will be verified when the system is installed in the 5th Infantry Division. Implementation of CS procedures will not change the rate of parts malfunction within supported units. However, units will not come in with requisitions as often as under the current system. The CS clerk, instead of issuing one each of an item, will now issue two or three each. This will reduce the parts issue workload. Nevertheless, CS personnel will now have to count out RP quantities for each CS item about twice a year. They will have to place RP cards in the bins when replenishment action takes place. On the whole, workload savings and increases tend to balance each other.
- Equipment impact. The DLST provided four CS supply vans to the main support company and one to each of the three forward support companies. This latter was on the premise of a 180-day EOQ stockage level. The concept now being implemented provides for only 15 to 20 days stock of these items with the balance of the forward support company's 180-day stock being held in the parent main support company This will result in the reduction of the weight and cube of transport requirement in forward support companies. Counteracting this will be the fact that the present criteria for CS stockage will add 10 to 15% more lines. The four supply vans provided to the main support company CS will now have to carry a greater stockage than in DLST. However, the DLST vehicular requirements were only estimates and were not properly tested. The actual installation of the CS concept at the 5th Infantry Division (mechanized) will verify the adequacy of the supply vans allocated.
- i. Records and Documents. In accomplishing supply support under CS procedures, the following records and documents will be required:
- (1) A CS stockage list will be prepared by the DDC and updated, to include catalog changes, semiannually. Copies will be distributed to all units in the division. The DDC in making its CS runoff, can print the list on a multilith master which can be reproduced.

- Reorder Point Record. The DLOGS system will use a DA Form 2765 preprinted and prepunched as the RP record card. When a CS item reaches the RP level, the RP card will be removed from the RP quantity container and brought forward to the locator file which contains an identical card. One copy of the DA Form 2765 (the better conditioned copy) will be forwarded to the DDC through the TSO. The other will remain in the locator deck. The DDC will recompute the stockage level and initiate replenishment action. At the same time the DDC will preprint and prepunch a new DA Form 2765 (in duplicate) with item identification, RP, quantity, and location data. The new DA Form 2765, will be sent back through the DSO to the main support company supply section country store where one copy will be placed in the item bin with a red piece of paper clipped to it. This shows that the item is on requisition. When the replenishment quantity is received at the CS and binned, the RP quantity of the item and RP card (DA Form 2765) with red marker removed will be placed in the RP container.
- (3) Catalog change and interchangeability/substitutability item list. Each month, the DDC will provide the maintenance battalion TSO with updated catalog change and interchangeability/substitutability information. This information will not be provided to using units. For each such item, the TSO will prepare and reproduce typewritten slips explaining the change. The slips will be forwarded to the CSs for issue with the appropriate item.
- (4) Shopping list. This form is a multiline request which provides for entry of federal stock number/part number and quantity desired. DLOGS procedures require that the noun description of the item be entered also. If and when the "simplified unit supply system" new multiline requisition form is adopted, it will replace the shopping list. The best way for units to use this form would be for the unit parts man to make proper entry on the shopping list each time he issues a part. Then, when he goes to the CS for replenishment of his stocks his request is already prepared.

APPENDIX B

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APPENDIX C

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